

Note

In defence of *Chrysopogon fallax* S.T.Blake (Poaceae)

In another contribution in this issue of *Austrobaileya*, Dr Veldkamp (Veldkamp 1999) has treated *Chrysopogon fallax* S.T.Blake (1944) as an illegitimate synonym of *C. benthamianus* Henrard (1941). In addition, Dr Clayton (Clayton 1999 and ongoing) uses the name *C. benthamianus* rather than *C. fallax* in his World Grasses Database on the world wide web. I consider *C. benthamianus* Henrard is not validly published and without standing under the International Code of Botanical Nomenclature (ICBN)(Greuter et al., 1994) whereas *C. fallax* is validly published, legitimate and correct for the species concerned under the ICBN.

Neither Brown (1810) nor Bentham (1878) intended publishing nor did publish a name distinct from *Andropogon gryllus* L. for a species of Poaceae. Both were enlarging their concept of Linnaeus's species *Andropogon gryllus*, under the generic names *Holcus* [Brown] or *Chrysopogon* [Bentham], to include Australian material they considered belonged in that species. That is, to both Brown and Bentham, Linnaeus's name applied not only to his species but also to the Australian material they included in it. As well, Bentham accepted that Linnaeus's species also included, as a variety, material that Brown had included in *Holcus pallidus*, Roemer and Schultes (1817) later included under *Pollinia pallida* and Kunth (1829) included under *Andropogon pallidus*. Bentham considered this species (as *Chrysopogon gryllus* (L.) Trin.) to be "widely spread over the tropical and warmer temperate regions of the Old World".

The type of the name *Chrysopogon gryllus* (L.) Trin. as used by Bentham, and the name *Holcus gryllus* (L.) R.Br. is the same as the type of *Andropogon gryllus* L., *Cent. II Pl.* 33 (1756) (ICBN, Art. 7.4). Specimens cited by Bentham under *Chrysopogon gryllus* (L.) Trin.

in 1878 have no bearing on typification of the name *Andropogon gryllus* L.

Hubbard (1938) and Henrard (loc. cit.), who apparently based his opinion mainly on Hubbard's published statements but also on others by Hackel (1889) and Pilger (1940), and also Blake (loc. cit.) all accepted that the taxon Bentham described under the name *Chrysopogon gryllus* did not include the type of Linnaeus's name *Andropogon gryllus* (and consequently of *Holcus gryllus* (L.) R.Br.), or the type of *Holcus pallidus* R.Br. They, in fact, accepted that Linnaeus's name with reference and Brown's two names with references, did not apply to Bentham's taxon.

In naming the taxon described by Bentham under *Chrysopogon gryllus*, Henrard (loc. cit.) stated that he treated only the part covered by Bentham's description as *C. benthamianus*. ("Bentham's *Chrysopogon Gryllus*, being described, we can give it another name: *Chrysopogon benthamianus* Henr. nom. nov. See Bentham Fl. Australiensis Vol. VII (1878) p. 537.").

Note should be taken here that Henrard was not providing a new name in the usual botanical sense of the words 'nom. nov.' to replace a previously validly published but illegitimate or potentially illegitimate name, but was providing a name to go with a previously published English description of a particular taxon he recognised. ICBN, Art. 33 is not, therefore, applicable in this situation, but Art.36 of the Code is.

Two queries arise when considering the name *Chrysopogon benthamianus*: is the name validly published and, if so, what is its type?

Henrard did not provide a Latin description with his name for this taxon, so to meet the requirements for valid publication of

this name in 1941, under Art. 36.1 of the ICBN, he had, as an alternative, to provide a reference to a previously and effectively published Latin description or diagnosis. Henrard did refer to ‘Bentham Fl. Australiensis Vol. VII (1878) p. 537.’ when proposing *C. benthamianus* but Bentham did not provide a Latin description or diagnosis there. Thus, since Henrard did not provide the mandatory Latin description or diagnosis or reference to such, his name *C. benthamianus* is not validly published and without standing under the ICBN.

Though not supplying a Latin description or diagnosis in 1878, Bentham did provide references to a number of previously and effectively published Latin descriptions relating to what are now considered more than one distinct species. It has been past practice to accept the current wording of Art. 36.1 to allow for indirect reference to a Latin description to satisfy the requirements of this Article but in those cases, the Latin description usually has been taken as one referring to the taxon concerned.

Henrard implied, by omission and the acceptance of *Chrysopogon gryllus* (L.) Trin. (page 531) and *Chrysopogon pallidus* (R.Br.) Trin. (page 531) as distinct species, that he accepted that none of the names with references cited by Bentham applied to the taxon he named *Chrysopogon benthamianus*. Thus, material associated with those previously published names is irrelevant to validation of Henrard’s name.

For the suggestion that reference to Bentham, who quoted as a synonym of *Chrysopogon gryllus* Brown’s name *Holcus gryllus* (L.) R.Br. and its place of publication, validated Henrard’s *Chrysopogon benthamianus* to be plausible, Henrard would have to have specifically included the reference to Brown’s validation of *Holcus gryllus*, then excluded the reference to Linnaeus’s *Andropogon gryllus*, and hence its type which is also type of Brown’s *Holcus gryllus* (ICBN, Art. 52.1&2). Henrard did not do that.

Perhaps it could be argued that Art. 36.1 of the ICBN should be interpreted to mean that a Latin description or diagnosis of any taxon

related to Bentham’s account, even if of a quite different species such as *Andropogon gryllus* L. or *Holcus pallidus* R.Br., is effective in validating *Chrysopogon benthamianus*. This seems quite nonsensical and is not what is intended by Article 36.1 of the ICBN.

Because of the foregoing, I continue to consider Henrard’s name *Chrysopogon benthamianus* not validly published and hence without standing under ICBN (Art. 6.6). There is, therefore, no need to consider what is/may be a type specimen for this name.

On the other hand, Blake (loc. cit.) took all the correct steps to validate his *Chrysopogon fallax*. He gave a Latin description of the taxon, nominated a holotype for his name, cited the location of the holotype and discussed how the species differed from *Chrysopogon gryllus* (L.) Trin. In doing the last, he effectively excluded the type of *Andropogon gryllus* L., and thus *Holcus gryllus* (L.) R.Br. and *Chrysopogon gryllus* (L.) Trin., from his concept of *C. fallax*. He excluded Brown’s type of *Holcus pallidus* from the species by accepting *Chrysopogon pallidus* (R.Br.) Trin. ex Steud. as a species distinct from *Chrysopogon fallax* (Blake loc. cit., p. 14).

In his discussion of *Chrysopogon fallax*, Blake listed a large number of references by many authors which he stated related “wholly or in part to this species”. There, he cited what he believed was applicable to *C. fallax* under the botanical name that the author used in each of those references, i.e. *Holcus gryllus* (L.) R.Br., *Chrysopogon gryllus* (L.) Trin., *Andropogon gryllus* L., *Chrysopogon gryllus* subsp. *pallidus* (R.Br.) Domin or *Chrysopogon gryllus* subvar. *pilosus* Domin. For some of these references, he specified the part of it he considered pertinent. Though this was not the case with Bentham’s reference to *Chrysopogon gryllus*, Blake did state that only the description in, and specimens associated with, Brown’s account of *Holcus gryllus* related to *Chrysopogon fallax*. Because of the way Blake treated these names elsewhere in his paper, none of the species names in these references can be considered to have been included by Blake as a synonym of *Chrysopogon fallax* thereby rendering it illegitimate.

For these reasons, I consider Blake's name *Chrysopogon fallax* to be both validly published and legitimate. I also believe it to be the correct name for the plant concerned.

Acknowledgments

I wish to thank both Bryan Simon and Les Pedley for their critical comments on earlier versions of this note.

References

- BENTHAM, G. (1878). *Fl. Australiensis* 7: 536–539.
- BLAKE, S.T. (1944). *Univ. Qld Papers, Dept. Biol.* 2(3): 9–14.
- BROWN, R. (1810). *Prodr. Fl. Nov. Holl.* 199.
- CLAYTON, W.D. (1999 and ongoing). *World Grasses Database*. <http://www.rbghkew.org.uk/herbarium/gramineae/wrlgr.htm>
- GREUTER, W., BARRIE, F.R., BURDET, H.M., CHALONER, W.G., DEMOULIN, V., HAWKSWORTH, D.L., JØRGENSEN, P.M., NICOLSON, D.H., SILVA, P.C., TREHANE, P. AND MCNEILL, J. (1994). *International Code of Botanical Nomenclature* (Tokyo Code). *Regnum Vegetabile* 131.
- HACKEL, E. (1889). *Andropogoneae in De Candolle, A. & C. Monographiae phanerogamarum* 6: 552.
- HENRARD, J. (1941). *Blumea* 4(3): 531–535.
- HUBBARD, C.E. (1938). *Hooker's Icones Plantarum* 34: t3365.
- KUNTH, C.S. (1829). *Rev. Gram.* 1: 165.
- PILGER, R. (1940). *Die Natürl. Pflanzenfamilien* 14c: 152.
- ROEMER, J.J. & SCHULTES, J.A. (1817). *Syst. veg.* 2: 828.
- VELDKAMP, J.F. (1999). *Austrobaileya* 5(3): 503–533.

Rodney J.F. Henderson

**Queensland Herbarium, EPA, Brisbane Botanic Gardens Mt Coot-tha, Mt Coot-tha Road, Toowong,
Queensland 4066, Australia**